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Years after its failed Steam Machines, Valve is slowly but surely improving the state of Linux gaming. The company’s upcoming Steam Deck handheld runs atop Linux, and its Proton compatibility layer lets it play Windows games as well. Now, Valve has officially added support for Nvidia’s DLSS machine learning temporal upscaling technique to Proton, potentially bringing big FPS boosts and less flicker in games that support the technology.
Valve is paving the way for us to ditch Windows and dive into Linux PC gaming, as the Steam Deck leads the charge with SteamOS and its Proton compatibility layer. Now, with the release of Proton 6.3-8 (via Videocardz), the company hopes to tempt even more players to jump ship with official support for Nvidia DLSS.

The proprietary upscaling technology can help boost fps in games like Call of Duty: Vanguard or Back 4 Blood, without sacrificing much in the way of image quality. Unfortunately, team green's upscaling technology won't be supported on the Steam Deck as it uses an AMD Zen2-based SoC, and Nvidia DLSS requires an RTX chip.

- **Nvidia DLSS Upscaling Will Not Be Compatible With Steam Deck** [7]

Upscaling is fast becoming the industry standard in modern AAA gaming, if it isn't already. Nvidia and AMD have their own versions, with Intel working on one for its upcoming range of GPUs, though "team green's" algorithm is probably the more popular one. The likes of Back 4 Blood use Nvidia's DLSS, or Deep Learning Super Sampling, with the purpose to improve visual fidelity using machine learning. However, not every system is going to be compatible with it, as it turns out that Valve's upcoming Steam Deck handheld PC won't have this specific upscaling technology.

According to a recent report, it won't be possible for the Steam Deck to use DLSS, which may be a concern for some people. However, the reason why is quite simple. Nvidia's technology requires one of its own graphics cards, specifically one from the RTX range, such as the RTX 3070 Ti for example. Given that the Deck uses an AMD product under the hood, it won't be compatible with the rival upscaling algorithm. But that does mean it can run AMD's own FidelityFX Super Resolution, or FSR, instead so it will still have upscaling, just not Nvidia's. It's also possible that it could be compatible with Intel's upcoming Xe Super Sampling as well.

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